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Notes and Descriptions of Pipunculidae from the Natal Museum, South Africa.[1]

By

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With 4 Text-figures.

THE following report concerns a collection received from Mr. B. R. Stuckenberg, of the Natal Museum, Pietermaritzburg, South Africa. I appreciate having had the opportunity of studying this material which adds considerably to our knowledge of the South African Pipunculidae. The collection contained twenty-seven species (plus eight apparently undescribed species represented by uniques). These belong to five genera and two subgenera. Three species of *Pipunculus* (*Pipunculus*) are being described as new.

The drawings have been prepared by Miss Paula Dee Ingold, University of Hawaii.

Chalarus spurius (Fallén).

Cephalops spurius Fallén, 1816, *Dipt. Sueciae, Syrphici*, p. 16.

Two specimens are in the collection from the Indumeni River, Fynbos Consocies, 6,300 ft. Cathedral Peak forestry reserve, Natal Drakensberg, March 1959 (B. R. and P. J. Stuckenberg); and indigenous forest at Storm's River Pass, Tsitsikama Range, Cape Province, 12–13 October 1959 (B. and P. Stuckenberg).

Pipunculus (*Pipunculus*) *abditus* (Hardy).

Dorilas (*Dorilas*) *abditus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser. Fasc. **36** : 13, fig. 1a.

One male is in the collection from Grahamstown, South Africa, 12.2.53 (B. Stuckenberg). This is the first record of this species from South Africa.

Pipunculus (*Pipunculus*) *angustifacies* (Hardy).

Dorilas (*Dorilas*) *angustifacies* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 20, figs. 7a–c.

The specimens on hand have the abdomen almost entirely velvety brown in colour with only the extreme apex of the fifth tergum bare of pollen and subshining to shining black. The species is readily differentiated, however, by the narrow face, by the obtuse third antennal segment, as well as by other characteristics.

Two male specimens are in the collection from Dhlinza Forest, Eshowe,

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Zululand, South Africa, 5–6 April 1960 (B. and P. Stuckenberg), and St. Helier near Hillcrest, Natal, South Africa, December 20, 1954 (B. Stuckenberg); and one male from Gorongoza Mountain, Manica—Sofala dist., Portuguese E. Africa, 840 m., Gallery Forest, September 1957 (B. Stuckenberg).

Pipunculus (*Pipunculus*) *bellulus* (Hardy).

Dorilas (*Dorilas*) *bellulus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 21, figs. 8a–b and 55a.

Two specimens are present from the following localities : Chirinda Forest, Mt. Selinda, Southern Rhodesia, January 25, 1955 (B.R.S., P.G.[1]) and Gorongoza Mountain, Manica-Sofala dist., Portuguese E. Africa, 840 m. Gallery Forest, September 1957 (Stuckenberg).

Pipunculus (*Pipunculus*) *brevicornis* Loew.

Pipunculus brevicornis Loew, 1857, *Öfvers K. Vet. Akad. Förhandl.*, **14** : 374.

One specimen is present from Dhlinza Forest, Eshowe, Zululand, South Africa, 5–6 April, 1960 (B. and P. Stuckenberg).

Pipunculus (*Pipunculus*) *damasi* (Hardy).

Dorilas (*Dorilas*) *damasi* Hardy, 1950, *Inst. des Parcs Nat. du Congo. Belge. Expl. du Parc Nat. Albert, Fasc.* **62** : 17, figs. 5a–d.

One specimen is present from Vumba Mountain near Umtali, S. Rhodesia, January 18, 1955 (B. R. S., P. G.).

Pipunculus (*Pipunculus*) *kalimus* n. sp (Text-figs. 1*a*–*b*).

This species fits close to *P. calcaratus* (Hardy) but the seventh abdominal segment of the female is small and inconspicuous, not large and conspicuously developed. It also differs by lacking broad, grey fasciae on the abdominal terga ; by the third antennal segment being obtuse below, not acute ; and by the last section of vein M1/2 being straight or nearly so, not strongly curved.

Female.—Head : The front is gradually narrowed from the antennae to the ocelli, at the upper portion the front is equal in width to about three rows of eye facets ; in the middle and lower portion the front is about equal in width to four rows of eye facets. It should be noted that the facets diminish greatly in size proceeding upward from the antennae to the ocelli. The front is entirely grey pollinose. The face is densely grey pubescent and is about two-thirds as wide as the lower portion of the front. The antennae are entirely yellow. The third segment is obtuse below (text-fig. 1*a*). *Thorax* : Dark brown to black in ground colour, brown pollinose on the dorsum and grey on the sides and over the metanotum. The humeri are yellow, the knobs of the halteres are dark brown to black. The scutellum has a row of about a dozen long, dark brown to black setae along the hind margin. Each propleuron has a fan of

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[1] This and further records labelled P.G., collected by Peter Graham.

long, pale hairs. *Legs* : entirely yellow except for the brown to black coxae and for discolorations of brown at the apices of the tarsi. The femora are slender. The ventral spines are moderately well-developed, black and rather conspicuous. Two rather long ventral bristles are present at the apex of each middle tibia ; these extend over half the length of the basitarsus. The front tibia also has two strong apical bristles on the venter, the innermost is the stronger of the two. The front tibia has two erect, posterior setae in the middle of the segment. The middle tibia has one or two erect setae in the middle of the segment on the posterior surface and the hind tibiae each have two or three large, erect anterior setae on the swollen portion. The hind tibia has a pad of very densely-placed golden pubescence on the apical third of the venter. This extends over the ventral portions of the first four tarsal subsegments. *Wings* : Entirely hyaline except for the dark-brown stigma, the latter fills all of the third costal section. The third section is approximately equal in length to the fourth and the two sections combined are nearly two-thirds longer than the fifth costal section. The r–m crossvein is situated near the basal one-third of cell 1st M2. The last section of M1/2 is gently curved. *Abdomen*: Rather long and straight-sided, thickly covered with suberect setae over the dorsum. The abdomen is shining black in ground colour, but is densely covered with grey pollen on the sides and brown on the dorsum, except for the grey first tergum and a slight indication of grey pollen on the extreme apical margin of each tergum. The sixth abdominal segment is three-fourths to four-fifths as long as the fifth. The seventh segment is poorly developed, not visible *in situ*. The ovipositor is short and straight ; the base is brown, covered with grey-brown pollen, and the piercer is yellow, about equal in length to the base and extends scarcely to the middle of the fifth abdominal segment, (text-fig. 1*b*).

Length : Body, 6·4 mm. ; wings, 7·5 mm.

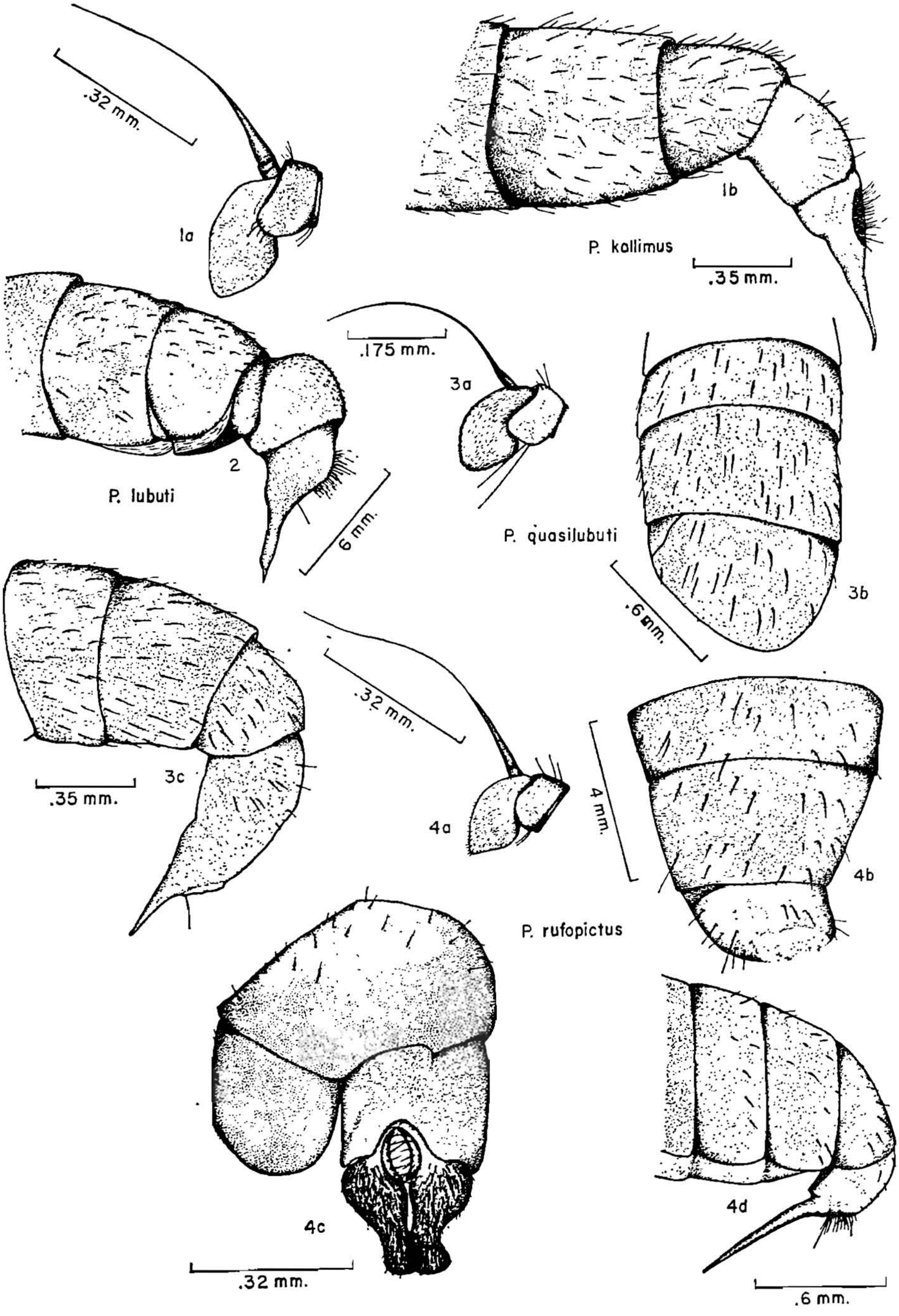
Male unknown.

Holotype female, Gorongoza Mountain, Manica-Sofala dist., Portuguese E. Africa, 1,200 m., Montane Forest, September 1957, (Stuckenberg). One paratype female, same data as type. The paratype is slightly smaller than the type. The body is 5 mm., the wings 6·4 mm.

The type has been returned to the Natal Museum. The paratype has been retained in the University of Hawaii collection.

Pipunculus (*Pipunculus*) *quasilubuti* n. sp. (Text-figs. 3*a*–*c*).

This species is closely related to *P. lubuti* Curran but differs by having the last section of vein M1/2 straight or nearly so, not strongly curved ; by the male hypopygium being wider than long as seen in dorsal view ; by the seventh segment of the female abdomen being poorly developed, not visible *in situ* ; and the ovipositor differently shaped (as shown in text-figs. 2 and 3*c*).


.32 mm.
1a
1b
P. kallimus
.35 mm.
.175 mm.
3a
2
P. lubuti
6 mm.
P. quasilubuti
3b
.6 mm.
.35 mm.
3c
.32 mm.
4 mm.
4a
4b
P. rufopictus
4c
.32 mm.
4d
.6 mm.

Male. Head: The two basal segments of the antennae are yellow, tinged lightly with brown. The third segment is yellow, obtuse ventrally (text-fig. 3*a*). The junction of the compound eyes is about one-half longer than the lower portion of the front. The lower front and all of the face are densely grey pubescent, the face is scarcely narrower than the lower portion of the front. The upper portion of the occiput is sparsely brown pollinose, the lower portion is densely grey. *Thorax*: Dark brown to black in ground colour, brown pollinose on the dorsum, grey on the sides. The humeri and stems of the halteres are yellow, the knobs of the halteres are yellow, tinged with brown. The hind margin of the scutellum has a row of about a dozen long black setae. Each propleuron has a fan of long hairs. *Legs*: Entirely yellow except for the dark-brown to black coxae and for brown discoloration at the apices of the tarsi. The femora are slightly thickened and the ventral spines are well-developed. The ventral setae at the apices of the front and middle tibiae are rather short, extending scarcely one-third the length of the basitarsi. Each hind tibia has two strong erect setae on the outside of the swollen portion. *Wings*: Entirely hyaline except for the brown stigma which fills all of the costal section. The third section is equal or slightly longer than the fourth and the two sections combined are about one-half longer than the fifth section. The r–m crossvein is situated at the basal third of cell 1st M2 and the last section of vein M1/2 is gently curved, almost straight. *Abdomen*: Rather straight-sided, thickly covered with short suberect setae over the dorsal surface. The terga are shining black in ground colour, rather densely coloured with grey-brown pollen, grey on the sides and predominantly brown over the dorsum with the apices narrowly grey but lacking distinct grey vittae over the segments. As seen from a dorsal view the male hypopygium is rather symmetrical with no membranous area, it is about equal in length to the fifth abdominal segment and is almost one-half wider than long (text-fig. 3*b*). The ninth segment and the claspers are yellow. The genitalia have not been relaxed and the ventral aspects have not been studied.

Length: Body, 5 mm.; wings, 6·4 mm.

Female.—Fitting the description of the male in most details. The front

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TEXT-FIG. 1.
Pipunculus kalimus n. sp. a. antenna; b. female ovipositor, lateral.

TEXT-FIG. 2.
P. lubuti Curran, female ovipositor, lateral.

TEXT-FIG. 3.
P. quasilubuti n. sp. a. antenna; b. apex of male abdomen, dorsal; c. female ovipositor, lateral.

TEXT-FIG. 4.
P. rufopictus n. sp. a. antenna; b. apex of male abdomen, dorsal; c. male genitalia, ventral; d. female ovipositor, lateral.

is entirely grey and is strongly narrowed on the upper portion, just below the ocelli it is about equal in width to the median ocellus. The face is distinctly narrowed, through the median portion it is scarcely over one-half as wide as the front above the antennae. The ventral bristles at the apices of the front and middle tibiae are much stronger than in the male, extending nearly two-thirds the length of the basitarsi. The sixth abdominal segment is approximately four-fifths as long as the fifth, the hind margin is not excised. The seventh segment is poorly developed, not visible *in situ*. The ovipositor is yellow, tinged with brown on the basal portion. The base is rather elongate, the basal part of the piercer is thickened so that the attenuated portion beyond the vulva is very short (text-fig. 3*c*). The ovipositor extends scarcely beyond the apex of the third abdominal segment.

Length : Body, 4·6 mm. ; wings, 6 mm.

Holotype male and allotype female from Ngome forest, between Vryheid and Nongoma, Natal, South Africa, 11–12 April 1960 (B. and P. Stuckenberg.)

The type and allotype have been returned to the Natal Museum, Pietermaritzburg, South Africa.

Pipunculus (*Pipunculus*) *rufopictus* n. sp. (Text-figs. 4*a–d*).

This species would run to *P. visendus* (Hardy) in couplet 10 of my key to the *Dorilas* (Hardy, 1950, *Explor. du Parc Nat. Albert*, Fasc. 62 : 7. Also refer to Hardy, 1961, *Explor. du Parc Nat. de la Garamba, Mission H. de Saeger*, Fasc. 24(3) : 117, couplet 14). *P. rufopictus* is readily differentiated by the genital characters of both sexes as shown in text-figs. 4*c* and 4*d*; compare with text-figs. 9*a* and 9*b* in Hardy, *Parc National Albert Report* and text-fig. 4*e* in the report on the Garamba. As seen from a dorsal view the male hypopygium is larger than that of *visendus* and has a large subapical membranous area to the right of the apex, rather than on the left side of the apex, and the 9th segment is not visible from the dorsal view (text-fig. 4*b*).

As seen from a ventral view the claspers are very differently shaped (text-fig. 4*c*) lacking the short tooth-like development of the inner median margin, as is characteristic in *visendus*. The female ovipositor is made much more slender, the base is less globose and lacks the tubercle on the underside (text-fig. 4*d*, compare with text-fig. 9*a* of the *Parc Albert National Report*). This species also differs by having the humeri and third antennal segment yellow, not brown to black, and the last section of vein M1/2 curved, as well as in other details. The narrow face of each sex will also differentiate this species. Since the female specimen on hand has the abdomen entirely dusted with grey pollen, it would run to couplet 34 in my report on the Garamba with *P.* (*Eudorylas*) *angustus* (Hardy). The two are very different species, however, belonging to different subgenera. The ovipositors are also very different in shape.

Male.—Head : The antennae are bright yellow, the third segment is short acute, or slightly obtuse ventrally (text-fig. 4*a*). The face is shining black in ground colour, densely covered with grey pubescence and with a polished black spot in the middle. The junction of the compound eyes is about one-half greater in length than the front. The face is conspicuously narrowed, in the median portion it is about one-half as wide as the front above the antennae. The upper portion of the occiput is velvety black, lightly covered with grey pollen. The lower portion is cinereous. *Thorax*: The mesonotum is brown in ground colour rather densely brown pollinose. The scutellum is yellow, tinged with brown and is covered with yellow-brown pollen. The metanotum is pale brown covered with grey pollen. The humeri and the stems of the halteres are yellow, the knobs of the halteres are brown. The pleura are yellow, except for a tinge of brown on the anterior and dorsal portions of the mesopleura, and except for the dark brown anterior basalare. Each propleuron has a fan of long pale hairs. The scutellum is bare except for a row of short brown hairs along the hind margin. *Legs*: Entirely yellow except for a tinge of brown on the apices of the tarsi. The joints are slender and the ventral spines on the femora are very weakly developed. No strong bristles are present on the outside of the swollen portion of the hind tibia. *Wings*: Very lightly infuscated on the apical two-thirds. The stigma is dark brown and fills all of the third costal section. The third section is equal to or just slightly longer than the fourth. The third and fourth sections combined are nearly two times longer than the fifth costal section. The r–m crossvein is situated near the basal third of cell first M2, and the last section of vein M1/2 is moderately curved. *Abdomen*: Almost straight-sided, slightly broader at the junction of the segments three and four. The first three segments are almost entirely yellow. The fourth is yellow, tinged with red. The fifth segment is entirely black and the visible portions of the genitalia, as seen from dorsal view, are dark brown covered with grey pollen. Typically the first three terga are opaque, the fourth is semi-shining and the fifth is polished black. One male specimen on hand has the abdomen entirely opaque, with the fifth tergum only lightly shining. As seen from above the genitalia are nearly as long as the fifth segment, are compressed to the right and have a large membranous area to the right of the apex (text-fig. 4*b*). As seen from a ventral view the membranous area does not bisect the eighth segment. The ninth segment and claspers are yellow. The former is slightly longer than wide, has a moderate concavity in the middle of the hind margin which extends about two-fifths the length of the segment measured down the middle line. The claspers are rather slender, slightly enlarged, blunt at their apices, curved inward and overlap each other on the inner margins (text-fig. 4*c*).

Length: Body, 5·3 mm.; wings, 6·75 mm.

Female.—Fitting the description of the male in most respects. The front is densely grey pollinose except for the extreme upper portion just below the ocelli and for a very narrow shining black median line extending from the ocelli about half-way down the front. The major portion of the front is rather broad, through the median portion it is equal in width to about five rows of eye facets, the upper portion is strongly narrowed so that below the median ocellus it is scarcely equal in width to two eye facets. The face is extremely narrow, the eyes are almost joined ; only a very thin line through the median portion of the face separates the eyes. The abdomen is reddish-yellow on the sides of the first four segments and is discoloured with brown on the median portion. The fifth and sixth terga are shining brown to black in ground colour. The entire abdomen is lightly covered with grey pollen. The base of the ovipositor is shining black in ground colour, covered with grey pollen. The piercer is yellow and straight, about two times longer than the base and extends beyond the apex of the third abdominal segment (text-fig. 4*d*).

Length : Body, 3·9 mm ; wings, 5 mm.

Holotype male, Chirinda Forest, Mt. Selinda, Southern Rhodesia, January 25, 1955 (B.R.S., P.G.). Allotype female, same locality as type, 5.ii.54, (N.J.Myers). Three male paratypes : One same data as allotype ; one Van Staadens Pass, Eastern Cape Province, South Africa, May 1959 (B. and P. Stuckenberg) ; one Tumbine Mountain, Milange, Portuguese E. Africa, July 1957 (B. and P. Stuckenberg).

The type, allotype, and one paratype have been returned to the Natal Museum. One paratype is being deposited in the U.S. National Museum and one is in the University of Hawaii collection.

Pipunculus (*Eudorylas*) *abdominalis* Loew.

Pipunculus abdominalis Loew, 1857, *Öfvers. K. Vet. Akad. Förhandl.*, **14** : 374.

Three specimens are present in the collection from the following localities : Gwalaweni Forest, Ingwavuma dist., Lebombo, Zululand, February 1957 (B. Stuckenberg) ; St. Helier, Bothas Hill, Natal, South Africa, April 1960 (B. and P. Stuckenberg) ; and Deepdale, Umkomaas Valley, Natal, South Africa, May 1959, (B. and P. Stuckenberg).

Pipunculus (*Eudorylas*) *abruptus* (Hardy).

Dorilas (*Eudorylas*) *abruptus* Hardy, 1952, *Bull. Inst. Roy. des Sci. Nat. de Belgique*, 28(55) : 7, figs. 3, 4 and 17.

Previously known only from the Congo. One female specimen on hand from the lower Zambesi River, Portuguese E. Africa (P. J. Usher), appears to belong here. It fits the original description in all respects except that it is slightly smaller than is typical. One male specimen from Nhlavini River, Ixopo dist. Natal, South Africa, March 17, 1957 (B. R. Stuckenberg) appears to belong with this female although the male of this species has not been described and I cannot be sure that it is correctly placed. The male hypopygium as seen from dorsal view is somewhat similar to that figured for *quasilubuti*, the apical portion is symmetrical with no membranous area. It fits in a different subgenus, however, from this species and the third antennal segment is long acuminate.

Pipunculus (*Eudorylas*) *aemulus* (Hardy).

Dorilas (*Eudorylas*) *aemulus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 16, figs. 4a–d.

Three males in the collection appear to fit this species in all respects; two females, however, differ by having the ovipositor shorter and more straight than is typical of *aemulus*. The specimens are from the following localities: Dukuduku, between St. Lucia and Matubatuba, Zululand, South Africa, 7–8 April 1960 (B. and P. Stuckenberg); Cathedral Peak area, Natal Drakensberg, alt. 6,400 ft. March 23, 1955 (B. Stuckenberg); and Dhlinza Forest, Eshowe, Zululand, South Africa, 5–6 April 1960 (B. and P. Stuckenberg). The two mentioned females are from the latter two localities.

Pipunculus (*Eudorylas*) *aethiopicus* (Hardy).

Dorilas (*Eudorylas*) *aethiopicus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 17, figs. 5a–d.

One female specimen of this species is present from Nyachowa Falls, near Umtali, Southern Rhodesia, January 16, 1955 (B.R.S., P.G.). One male specimen, which I cannot be sure belongs here, from Sevenweekspoort, Laingsburg dist. Western Cape province, 19–22 September 1959 (B. and P. Stuckenberg).

Pipunculus (*Eudorylas*) *excisus* (Hardy).

Dorilas (*Eudorylas*) *excisus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. 36 : 32, figs. 18a–c.

Five specimens are present in the collection from the following localities: Chirinda Forest, Mt. Selinda, S. Rhodesia, January 25, 1955 (B. R. S., P. G.); from the same locality, 5.ii.57 (N. E. Myers); Nyachowa Falls near Umtali, S. Rhodesia, January 16, 1955 (B. R. S., P. G.).

Pipunculus (*Eudorylas*) *galeatus* (Hardy).

Dorilas (*Eudorylas*) *galeatus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique,* 2nd ser. Fasc. **36** : 36, figs., 22a–b.

Two specimens are present which are possibly this species or may represent an undescribed species from Gwalaweni Forest, Ingwavuma Dist., Lebombo, Zululand, February 1957 (B. Stuckenberg) and Mariepskop, E. Transvaal, October 1956 (B. Stuckenberg).

Pipunculus (*Eudorylas*) *inornatus* (Hardy).

Dorilas (*Eudorylas*) *inornatus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 37, figs. 23a–b.

One specimen present from Gorongoza Mountain, Manica-Sofala dist., Portuguese E. Africa, 840 m., Gallery Forest, September 1957 (B. Stuckenberg).

Pipunculus (*Eudorylas*) *mutillatus* Loew.

Pipunculus mutillatus Loew, 1857, *Öfver. K. Vet. Akad. Förhandl.* **14** : 374.

Two specimens present from Chirinda Forest, Mt. Selinda, S. Rhodesia, January 25, 1955 (B.R.S., P.G.) and Pietermaritzburg, South Africa, 16.viii.56 (B. Stuckenberg).

Pipunculus (*Eudorylas*) *natalensis* (Hardy).

Dorilas (*Eudorylas*) *natalensis* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 45, figs. 30a–c.

Four specimens are present from the following localities : Ngome Forest between Vryheid and Nongoma, Zululand, 11–12 April 1960 (B. & P. Stuckenberg) ; Sevenweekspoort, Laingsburg dist., Western Cape Province, 19–22 September, 1959 (B. & P. Stuckenberg) ; and Indumeni Forest, c. 5,000 ft., Cathedral Peak Forest Reserve, Natal Drakensberg, March 1959 (B. R. and P. J. Stuckenberg).

Pipunculus (*Eudorylas*) *porrectus* (Hardy).

Dorilas (*Eudorylas*) *porrectus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 51, figs. 35a–b.

One specimen present from Gorongoza Mountain, Manica-Sofala Dist., Portuguese E. Africa, 840 m., Gallery Forest, September 1957 (Stuckenberg).

Pipunculus (*Eudorylas*) *pusillus* (Hardy).

Dorilas (*Eudorylas*) *pusillus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 52, fig. 36a.

Three males and one questionable female are present from the following localities (the female is listed last) : Rhodes-Inyanga National Park, S. Rhodesia, January 13, 1955 (B. R. S., P. G.) ; Pietermaritzburg, Natal, 30.v.55 (B. Stuckenberg) ; Karroo at Junction of Calvinia-Sutherland Roads, nr. Inverdoorn, Ceres Dist., Western Cape, 2–3 October, 1959 (B. and P. Stuckenberg) ; and Bainskloof, Wellington dist., about 2,000 ft., Western Cape, 4–5 October, 1959 (B. and P. Stuckenberg).

Beckerias inchoatus Hardy.

Beckerias inchoatus Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 62, figs. 45a–c.

Two specimens, a male and a female, present from Gorongoza Mountain, Manica-Sofala dist., Portuguese E. Africa, 840 m. Gallery Forest. September 1957 (B. Stuckenberg).

Wittella candidula (Hardy).

Dorilas (*Eudorylas*) *candidulus* Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 25, figs. 11a–b.

Two specimens are present from Umlazi River near Thornville, Natal, 7–v–55 (B. Stuckenberg) ; and Inchanga, Natal, 19.v.55 (B. Stuckenberg).

Tomosvaryella africana Hardy.

Tomosvaryella africana Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 66, figs. 46a–c.

Six specimens are present from the following localities : Sevenweekspoort, Laingsburg dist., Western Cape Province, 19–22 September, 1959 (B. and P. Stuckenberg) ; and Zwartkop Location, Pietermaritzburg dist., Natal, August 1959 (B. and P. Stuckenberg).

Tomosvaryella apicalis Hardy.

Tomosvaryella apicalis Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 68, figs. 48a–c.

Seven specimens are present from the following localities : Zwartkop Location, Pietermaritzburg dist., Natal, August 1959 (B. and P. Stuckenberg); Fire-lookout, Grassland on steep slopes, 7,500–7,700 ft., Cathedral Peak Forestry Reserve, Natal Drakensberg, March 1959 (B. R. and P. J. Stuckenberg); Hilton Road, Natal, S. Africa, January, 1954 (P. G.); indigenous forest at Storms River Pass, Tsitsikama Range, Cape Province, October, 1959 (B. and P. Stuckenberg) ; Luabo, Lower Zambezi River, Portuguese E. Africa, August, 1957 (P.J.Usher); and Pietermaritzburg, December 1951 (B. Stuckenberg).

Tomosvaryella gibbosa Hardy.

Tomosvaryella gibbosa Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique*, 2nd ser., Fasc. **36** : 71, figs. 49a–b.

Two specimens are present from Ngome Forest between Vryheid and Nongoma, Natal, 11–12 April, 1960 (B. and P. Stuckenberg) ; and Franschhoek pass, near Franschhoek, Western Cape Province, 7–8 October, 1959 (B. and P. Stuckenberg).

Tomosvaryella subvivescens (Loew).

Pipunculus subvirescens Loew, 1872, *Berl. Ent. Zeitschr.* **16** : 87.

Six specimens are present from the following localities : Dukuduku between St. Lucia and Matubatuba, Zululand, S. Africa. 7–9 April, 1960 (B. and P. Stuckenberg) ; Michell's Pass, Ceres dist., Western Cape, October 6, 1959 (B. and P. Stuckenberg) ; Karroo at Junction of Calvinia–Sutherland Roads, nr. Inverdoorn, Ceres, W. Cape, 2–3 October, 1959 (B. and P. Stuckenberg) ; Rhodes-Inyanga Nat. Park, S. Rhodesia, January 13, 1955 (B. R. S., P. G.) ; and Tabeni River near Richmond, Natal, 27.iv.55 (B. Stuckenberg).

Tomosvaryella varana Hardy.

Tomosvaryella varana Hardy, 1949, *Mem. Inst. Roy. des Sci. Nat. de Belgique,* 2nd ser., Fasc. **36** : 76, figs. 53a–d.

Three specimens are present from the following localities : Town Bush, Pietermaritzburg, South Africa, xi.59 (B. and P. Stuckenberg) ; and Indumeni River, Fynbos Consocies, 6,300 ft. Cathedral Peak Forest Reserve, Natal Drakensberg, March 1959 (B. R. and P. J. Stuckenberg).

A series of approximately eight probably new species of *Pipunculus* and one new *Wittella* are represented in the collection by unique specimens. These will have to be described when more material is available for study.